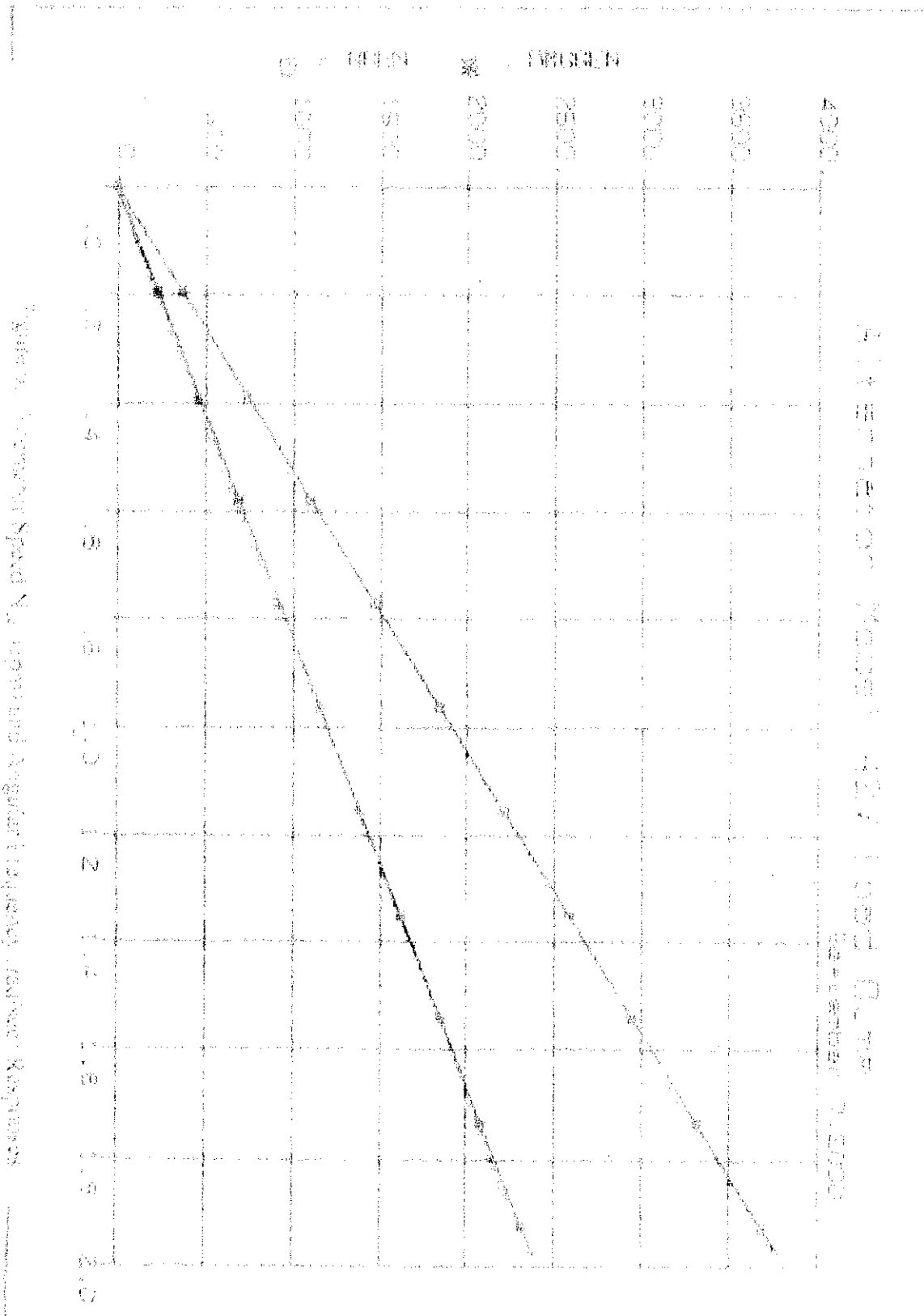
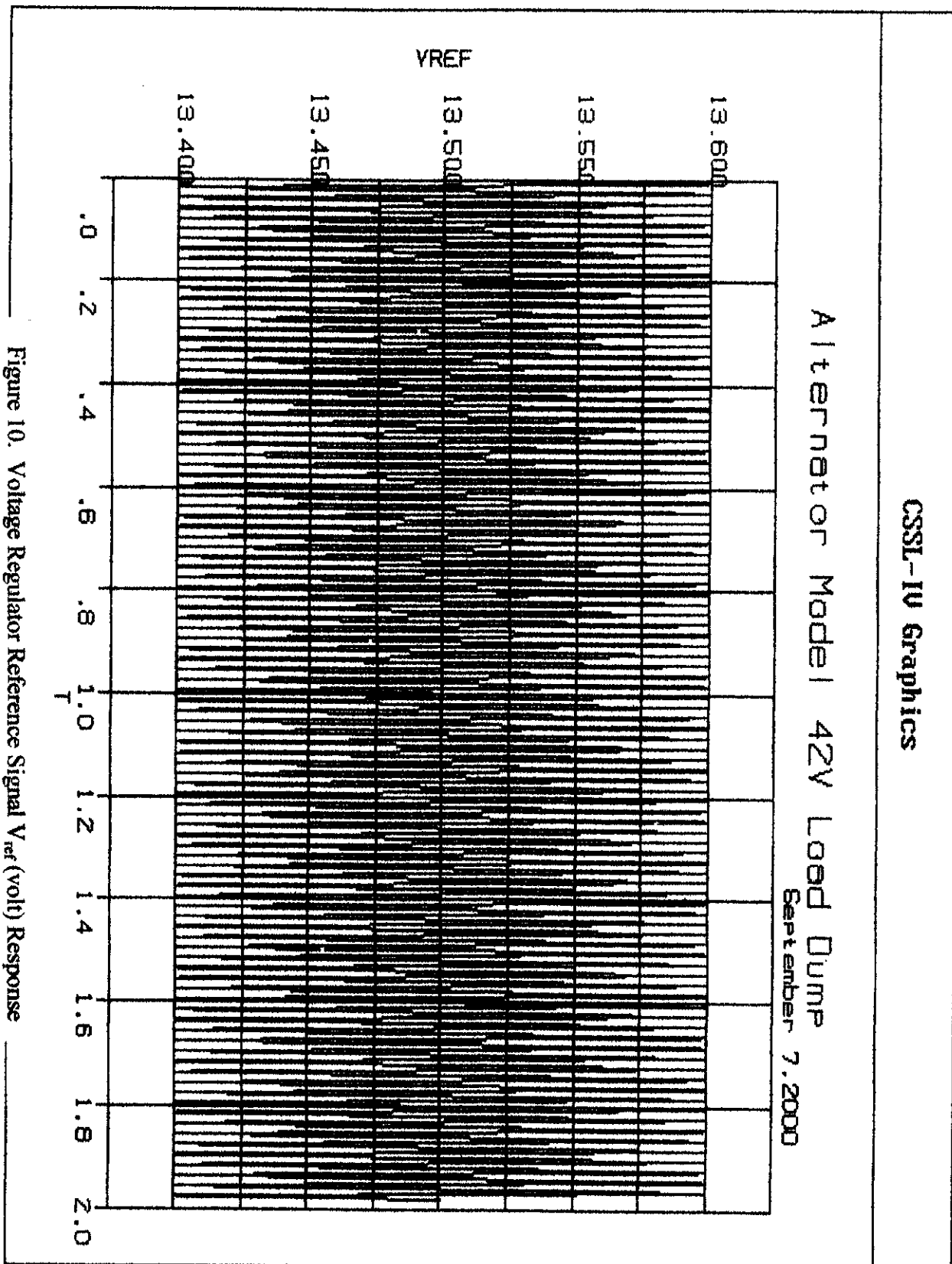


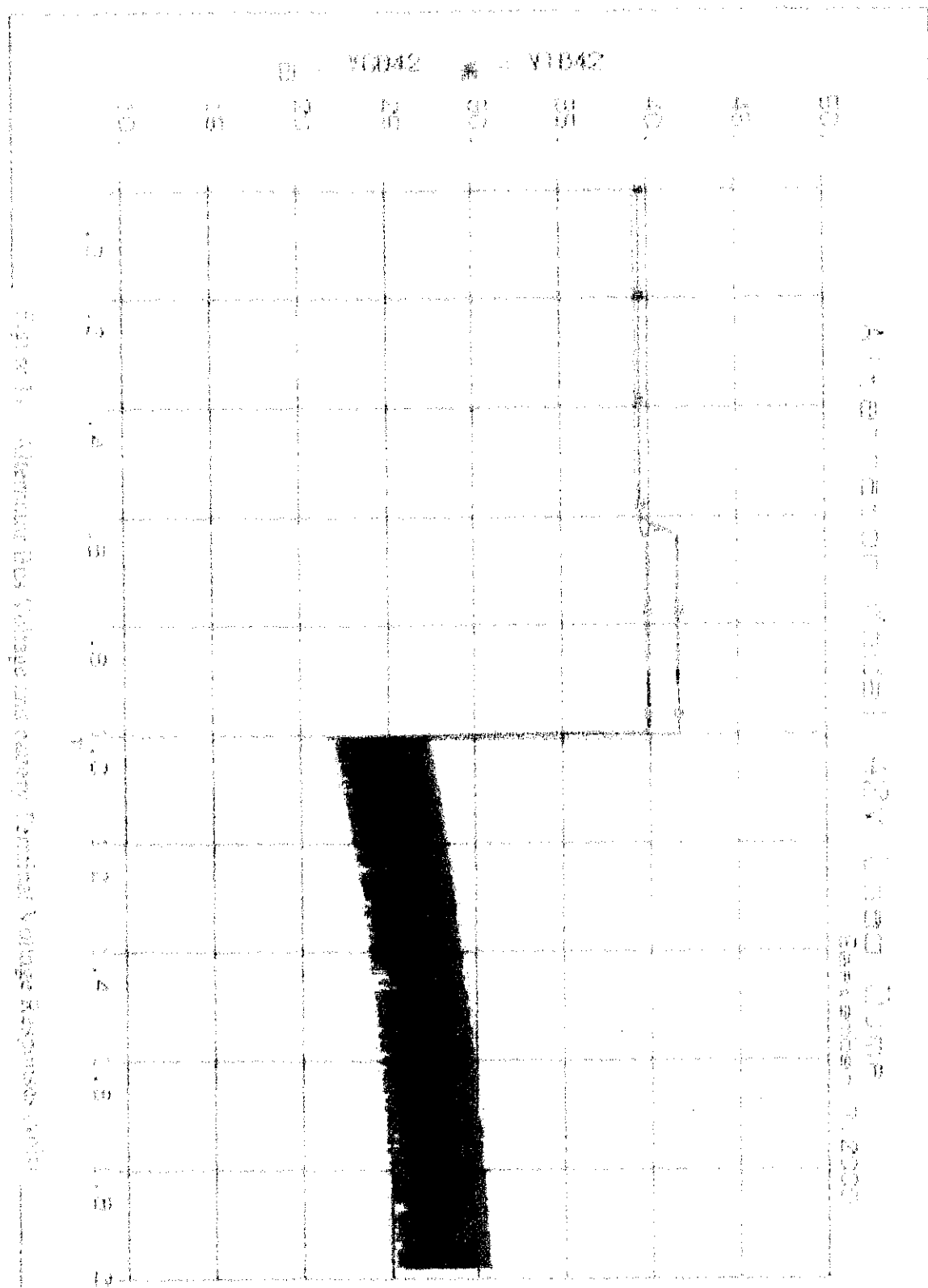
ATTACHMENT-4
5 b) The 42/14 Volt automotive

Electrical system
Simulation Results

CSST-IV Graphs







CSL-10 Graphics

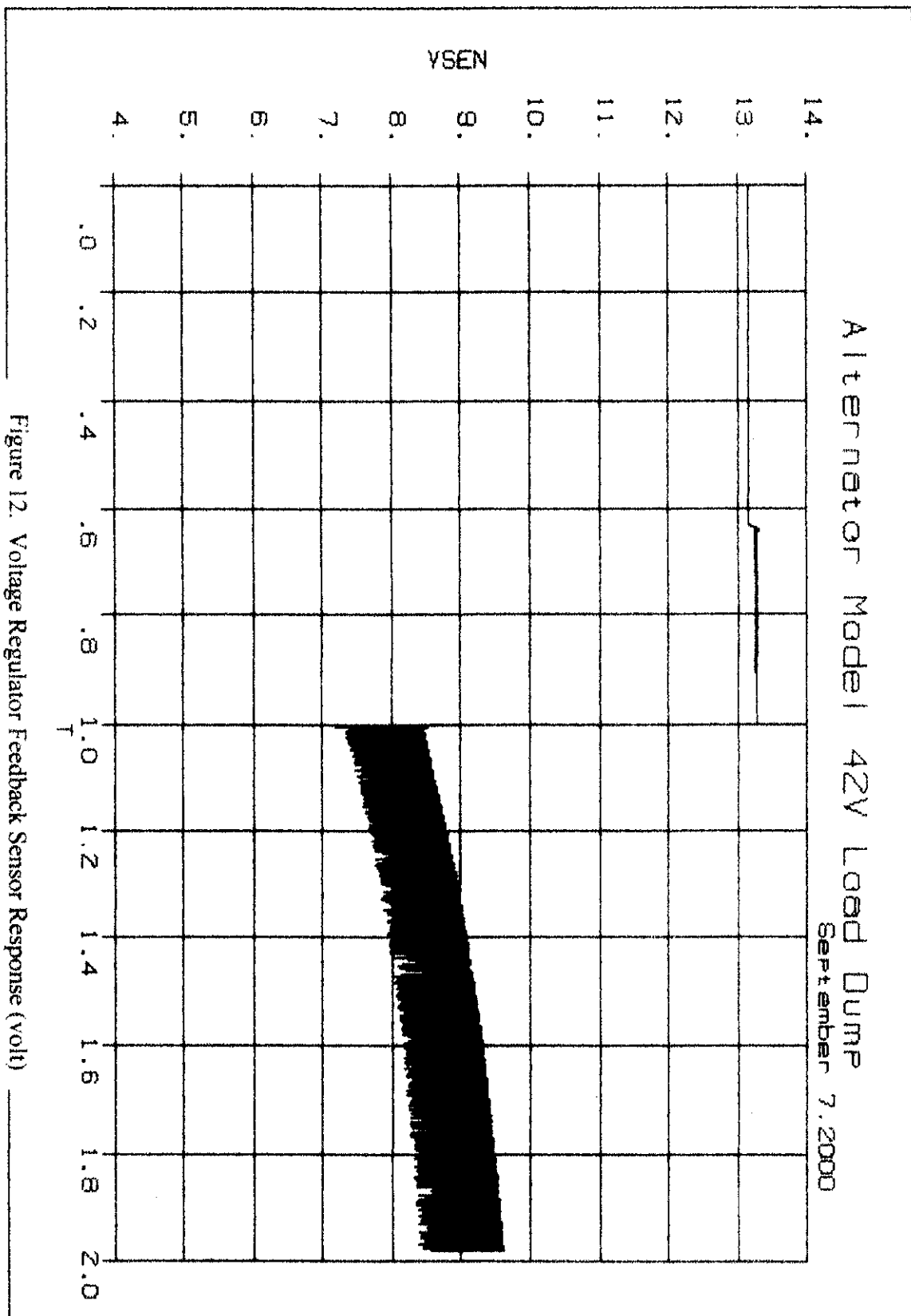


Figure 12. Voltage Regulator Feedback Sensor Response (volt)

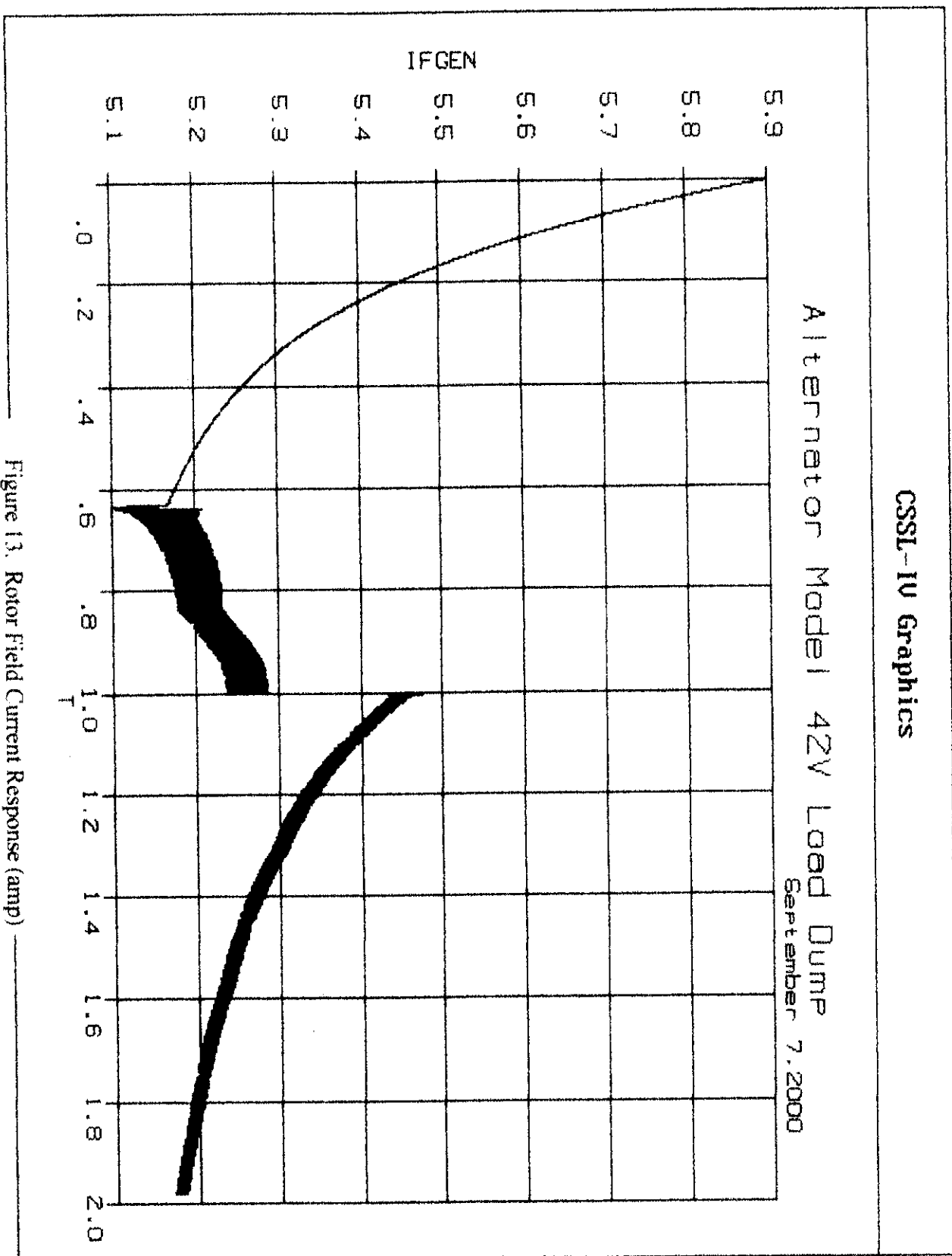
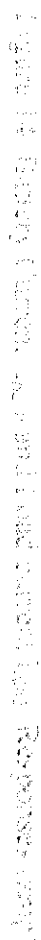
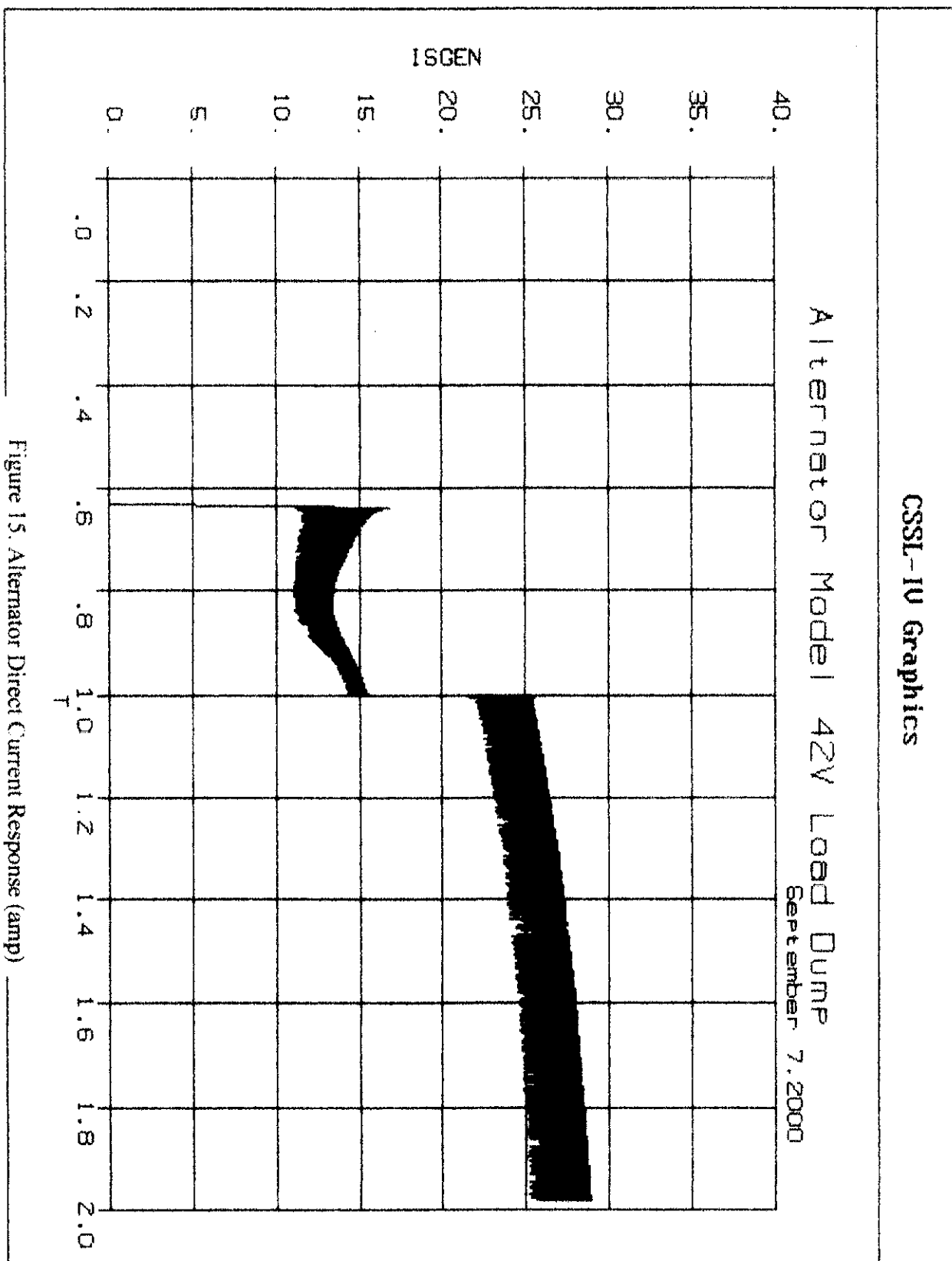


Figure 13. Rotor Field Current Response (amp)





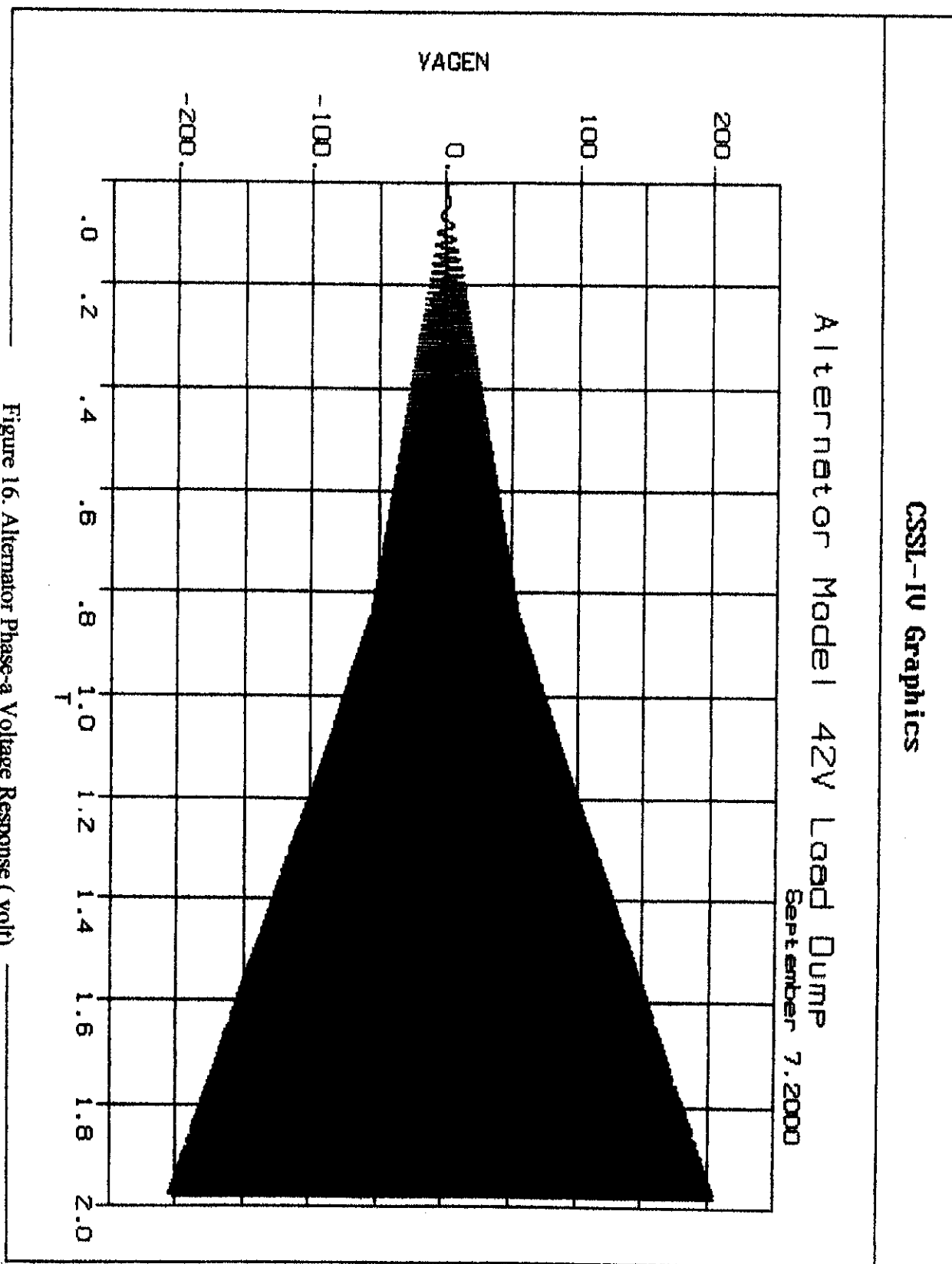


Figure 16. Alternator Phase-a Voltage Response (volt)

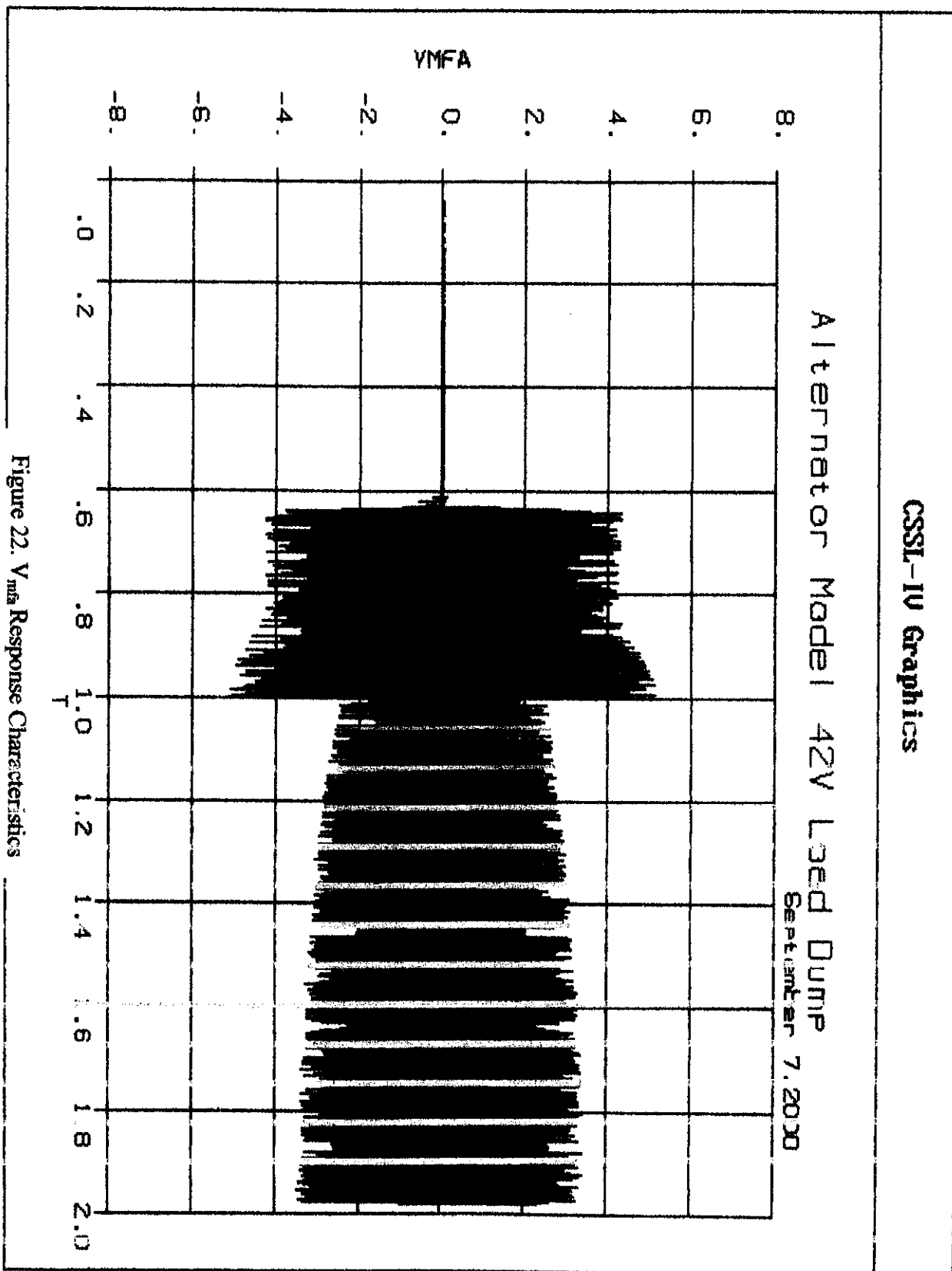


Figure 22. V_{mfa} Response Characteristics

CS3L- IV Graphics

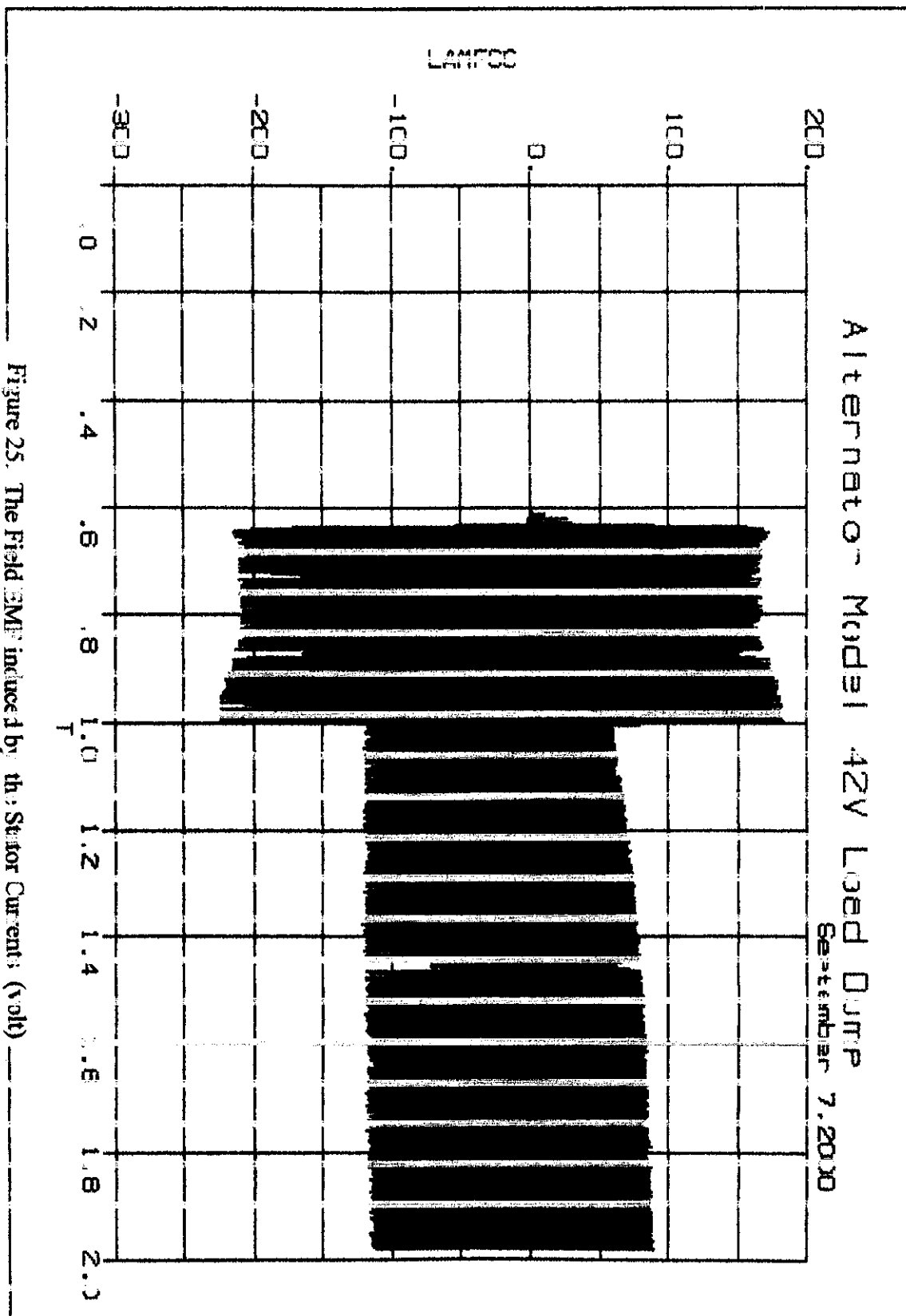


Figure 25. The Field EMF induced by the Stator Currents (volt)

Aug 30

Yilmaz,

I am glad to see the problem resolved going into 1.05 seconds, although your detailed plot does not show any time after 1.05.

- 1) On the detailed plot, I think the curves indicate you need a much refined time step. Since these are the induced voltages, they should be perfectly smooth sinusoids as on our outputs. You may need to go down a power of 10 to achieve this.
- 2) On the black tornado plot (see attached), there is clearly something wrong between 1.6 and 1.8. Please resolve all qualitative and quantitative items before further fixes. I really have no need to review intermediate results.

Thanks

John

P(3)

Final Communication
Potential

{ N_{ST} = 500
TFIN = 2.0 sec.

}

= 0.5E-3
500 = 1.0E-6

CSSL-10 Graphics

